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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/399,694	09/21/1999	MARK ANTHONY CESARE	ST9-99-037	2556

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KONRAD RAYNES & VICTOR, LLP
315 S. BEVERLY DRIVE
210
BEVERLY HILLS, CA 90212

EXAMINER

PHAM, HUNG Q

ART UNIT PAPER NUMBER

2172

DATE MAILED: 05/06/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

SL

Office Action Summary

Application No.

09/399,694

Applicant(s)

CESARE ET AL.

Examiner

HUNG Q PHAM

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 16 & 17.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-46 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 45 is objected to because of the following informalities: *the memory device of claim 4*. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-7, 14-20, 27-33 and 40-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter [Design and Implementation of Derivation Rule in Information Systems].

Regarding to claims 1, 14, 27 and 40, Winter teaches a method for propagating of deletion into dependent objects. As shown in FIG. 7 page 236 is an example to illustrate the rule in order to define the propagation of deletion, the name of the input table wherein $p\# = \text{old.p\#}$ as find criteria, the column product as an input data column in the input table are specified, and the column value that satisfied the condition will be deleted, or in different words, NULL as a replacement value will replace the old value. As seen, the technique as discussed indicates the steps of *receiving at least one rule definition, wherein each rule definition indicates a find criteria, a replacement value, and input data column in the input table*. Obviously, by pressing ENTER, for example, the trigger function will be activated and searching for a column wherein $p\# = \text{old.p\#}$ of the PRODUCTION_PROGRAM table that match to replace the old value with NULL value. Winter does not explicitly teach technique of propagating of deletion occurs *if the rule definition does not specify an output table, and subsequent applications of additional rule definitions applied to the same input data column operate on replacement values inserted in the input data column in previously applied rule deletion*. However, as seen in the technique of creating a trigger, no output table was specified, and obviously, PRODUCT_AD as subsequent applications of additional predefined rule is triggered or

operated by the deletion of column PRODUCT when NULL is inserted in the input data column after the step of searching, and replacing. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Winter technique of propagating of deletion by including an output table as a condition and applying trigger as subsequent application in order to propagate a deletion.

Regarding to claims 2, 15, 28 and 41, Winter teaches all the claim subject matters as discussed in claims 1, 14, 27 and 40, Winter further discloses *the rule definition is associated with one rule table including the find criteria and replacement value, wherein a rule table column parameter for each rule definition indicates the columns in the rule table including the find criteria and replacement value for the rule definition* (FIG. 7, page 236).

Regarding to claims 3, 16, 29 and 42, Winter teaches all the claim subject matters as discussed in claims 1, 14, 27 and 40, Winter further discloses *a separate rule table including the find criteria and replacement value associated with at least one rule definition, wherein, for each rule definition, a rule table column parameter indicates the columns in the rule table for the rule definition including the find criteria and replacement value for that rule definition* (FIG. 7, page 236).

Regarding to claims 4, 17 and 30, Winter teaches all the claim subject matters as discussed in claims 1, 14 and 27, Winter further discloses *the input data column for a first and second applied rule definitions is the same input data column, wherein the replacement value for the first rule definition is inserted into at least one field in the input data column, and wherein the find criteria of the second rule definition is applied to the replacement value inserted in the input data column* (FIG. 7, page 236).

Regarding to claims 5, 18, 31 and 44, Winter teaches all the claim subject matters as discussed in claims 1, 14, 27 and 40, Winter further discloses *at least one rule definition includes multiple find criteria and a corresponding replacement value for each find criteria, wherein the step of searching the input data column comprises applying each of the multiple find criteria to one field until one of: (i) a match occurs and (ii) none of the multiple find criteria are found to match the field content, and wherein inserting the replacement value comprises inserting the replacement value corresponding to one find criteria that matched the field content* (FIG. 7, page 236).

Regarding to claims 6, 19, 32 and 45, Winter teaches all the claim subject matters as discussed in claims 5, 18, 31 and 40, Winter further discloses *a sort column includes values to use to sort the multiple find criteria and corresponding replacement value, wherein the step of searching comprises applying the multiple find criteria to each field in the order specified in the sort column* (FIG. 7, page 236).

Regarding to claims 7, 20, 33 and 46, Winter teaches all the claim subject matters as discussed in claims 1, 14, 27 and 40, Winter further discloses the rule definition comprises *a type of rule that is a member of the set of rules consisting of: find and replace, discretization, and numeric clip, wherein at least two rule definitions are comprised of different rule types* (FIG. 7, page 236).

Regarding to claim 43, Winter teaches all the claimed subject matters as discussed in claim 40, Winter further discloses *the input data column for a first and second applied rule definitions is the same input data column* (FIG. 7).

5. Claims 8-13, 21-26 and 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter [Design and Implementation of Derivation Rule in Information Systems] in view of Agarwal et al. [USP 6,370,522 B1].

Regarding to claims 8, 21 and 34, Winter teaches all the claim subject matters as discussed in claims 1, 14 and 27, Winter does not explicitly teach *the find criteria for at least one rule definition comprises an upper bound and lower bound, wherein searching comprises searching for any fields that have values within the upper and lower bounds.*

However, searching for a particular field in a table with an upper bound and lower bound is very well known in the art, and disclosed by Agarwal (Agarwal, Col. 9, Lines 35-62). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Winter technique of propagating of deletion by including an upper and lower bound in order to propagate the deletion of particular columns between a specified range.

Regarding to claims 9, 22 and 35, Winter and Agarwal teaches all the claimed subject matters as discussed in claims 8, 21 and 34, Winter further discloses the step of *searching the input data column comprises applying each of the multiple find criteria to one field until one of: (i) a match occurs and (ii) none of the multiple find criteria are found to match the field content, and wherein inserting the replacement value comprises inserting the replacement value corresponding to one find criteria that matched the field content* (Winter, FIG. 7).

Regarding to claims 10, 23 and 36, Winter and Agarwal teaches all the claimed subject matters as discussed in claims 8, 20 and 34, Agarwal further discloses the step of *searching for any fields that have values outside of one of the upper and lower bounds* (Agarwal, Col. 9, Lines 35-62).

Regarding to claims 11, 24 and 37, Winter teaches all the claimed subject matters as discussed in claims 1, 14 and 27, but does not explicitly teach *the find criteria for at least one rule definition comprises an upper bound and lower bound and wherein the replacement value is an upper replacement value and further comprising a lower replacement value, wherein searching comprises searching for any fields that have values within the upper and lower bounds and wherein inserting comprises inserting the upper replacement value if the field has a value greater than the upper bound and inserting the lower replacement value if the field has a value less than the lower bound*. However, searching for a particular field in a table with an upper bound and lower bound is very well known in the art, and disclosed by Agarwal (Agarwal, Col. 9, Lines 35-62). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Winter technique of propagating of deletion by including and upper and lower bound in order to propagate the deletion of particular columns between a specified range.

Regarding to claims 12, 25 and 38, Winter and Agarwal teaches all the claimed subject matters as discussed in claims 11, 24 and 37, Winter further discloses the step

of searching the input data column comprises applying each of the multiple find criteria to one field until one of: (i) a match occurs and (ii) none of the multiple find criteria are found to match the field content, and wherein inserting the replacement value comprises inserting the replacement value corresponding to one find criteria that matched the field content (Winter, FIG. 7).

Regarding to claims 13, 26 and 39, Winter teaches all the claimed subject matters as discussed in claims 1, 14 and 27, but does not explicitly teach *a row clean flag, and wherein at least one rule definition has the row clean flag set, further comprising removing any row including a field matching the search criteria from the input table when the row clean flag is set*. Agarwal teaches a technique of setting a flag to indicate a record includes in a range of search (Agarwal, Col. 11, Lines 46-55). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Winter technique by using a flag to indicate a returned record that match the search criteria in order to propagate the deletion of particular columns between a specified range.


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 703-605-4242. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Hung Pham
April 26, 2004


SHAHID ALAM
PRIMARY EXAMINER